



A Touchstone Energy Cooperative 

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April 1, 2014

Director of Engineering
Kentucky Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602-0615

RE: Administrative Case No. 2006-00494

Enclosed are the original and five (5) copies of the 2013 Distribution Reliability Report, for Owen Electric Cooperative, as requested in the revisions to the aforementioned order.

Should you have any questions or need further information, please contact our office

Sincerely,

A handwritten signature in cursive script that reads "Rusty Williams".

Rusty Williams
Senior Vice President of Operations & Technology

Enclosures

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

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SECTION 1: CONTACT INFORMATION

UTILITY NAME	<u>Owen Electric Cooperative</u>
REPORT PREPARED BY	<u>James Petreshock</u>
E-MAIL ADDRESS OF PREPARER	<u>jpetreshock@owenelectric.com</u>
PHONE NUMBER OF PREPARER	<u>(502)563-3492</u>

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	<u>2013</u>
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SECTION 3: MAJOR EVENT DAYS

T_{MED}	<u>13.214</u>
FIRST DATE USED TO DETERMINE T_{MED}	<u>1-Jan-2008</u>
LAST DATE USED TO DETERMINE T_{MED}	<u>31-Dec-2012</u>
NUMBER OF MED IN REPORT YEAR	<u>0</u>

NOTE: Per IEEE 1366 T_{MED} should be calculated using the daily SAIDI values for the five prior years. If

SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

System-wide Information			
TOTAL CUSTOMERS	<u>58,095</u>	TOTAL CIRCUITS	<u>108</u>
Excluding MED			
5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	<u>136</u>	SAIDI	<u>104.5</u>
SAIFI	<u>1.44</u>	SAIFI	<u>0.939</u>
Including MED			
5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	<u>472.4</u>	SAIDI	<u>104.5</u>
SAIFI	<u>2.02</u>	SAIFI	<u>0.939</u>

Notes:

- 1) All duration indices (SAIDI) are to be reported in units of minutes.
- 2) Reports are due on the first business day of April of each year
- 3) Reports cover the calendar year ending in the December before the reports are due.
- 4) IEEE 1366 (latest version) is used to define SAIDI, SAIFI, and T_{MED}

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

Circuit # 1

5.1.1	SUBSTATION NAME AND NUMBER	BOONE, Sub No. 1
5.1.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.1.3	CIRCUIT NAME AND NUMBER	BOONE, Circuit 2, 0102
5.1.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.1.5	TOTAL CIRCUIT LENGTH (MILES)	74.3
5.1.6	CUSTOMER COUNT FOR THIS CIRCUIT	918
5.1.7	DATE OF LAST CIRCUIT TRIM (VM)	2013

5.1.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	1.63%	1.28%
Equipment/Installation	16.52%	8.20%
Member/Public	0.10%	0.03%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	13.12%	12.52%
Unknown	17.86%	8.28%
Weather	37.62%	29.12%
Age/Deterioration	0.04%	0.06%
R.O.W. Preventable	13.12%	40.52%

5.1.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	165.005
5.1.10	REPORTING YEAR (SAIDI)	808.820
5.1.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	52.528
5.1.12	REPORTING YEAR (SAIFI)	6.060

5.1.13 CORRECTIVE ACTION PLAN:

This circuit serves a rural portion of Boone County with difficult cross-county terrain with limited backfeeding opportunities. Due to a combination of reasons, mostly weather related, there were 5 significant ROW related outages. In one instance a tree, identified as significant hazard, required the primary lines to be de-energized and cut down in order to fell the tree without damage to the circuit.

Actions:

This circuit was in the process of being trimmed in 2013 and Owen Electric will continue to monitor the circuit and is exploring backfeeding construction projects within our current construction work plan (2014-2017).

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 2

5.2.1	SUBSTATION NAME AND NUMBER	BANKLICK, Sub No. 2
5.2.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.2.3	CIRCUIT NAME AND NUMBER	BANKLICK, Circuit 1, 0201
5.2.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.2.5	TOTAL CIRCUIT LENGTH (MILES)	17.8
5.2.6	CUSTOMER COUNT FOR THIS CIRCUIT	908
5.2.7	DATE OF LAST CIRCUIT TRIM (VM)	2010

5.2.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	11.86%	6.71%
Equipment/Installation	4.84%	0.10%
Member/Public	52.06%	66.35%
R.O.W. Unpreventable	3.15%	1.61%
Scheduled	12.83%	15.28%
Unknown	8.96%	3.16%
Weather	6.30%	6.78%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.2.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	41.340
5.2.10	REPORTING YEAR (SAIDI)	45.640
5.2.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	2.908
5.2.12	REPORTING YEAR (SAIFI)	0.480

5.2.13 CORRECTIVE ACTION PLAN:

A late night Motor Vehicle Accident (MVA) involving a vehicle a single phase multi-tap pole. The pole broke as a result of the impact.

Action:

Without this outage the circuit would have performed well below the 5 year rolling average. Owen Electric designs overhead lines to NESC and RUS specifications and recommendations. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. EKPC has a good maintenance program and continues to work on providing the best cost effective solution to serve Owen Electric as well as our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 3

5.3.1	SUBSTATION NAME AND NUMBER	BANKLICK, Sub No. 2
5.3.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.3.3	CIRCUIT NAME AND NUMBER	BANKLICK, Circuit 5, 0205
5.3.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.3.5	TOTAL CIRCUIT LENGTH (MILES)	17.7
5.3.6	CUSTOMER COUNT FOR THIS CIRCUIT	909
5.3.7	DATE OF LAST CIRCUIT TRIM (VM)	2010

5.3.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	13.04%	18.76%
Equipment/Installation	4.35%	2.95%
Member/Public	2.17%	4.73%
R.O.W. Unpreventable	34.78%	34.28%
Scheduled	6.52%	14.65%
Unknown	32.61%	15.81%
Weather	5.43%	5.25%
Age/Deterioration	1.09%	3.58%
R.O.W. Preventable	0.00%	0.00%

5.3.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	3.045
5.3.10	REPORTING YEAR (SAIDI)	6.530
5.3.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.758
5.3.12	REPORTING YEAR (SAIFI)	0.110

5.3.13 CORRECTIVE ACTION PLAN:

Due to a combination of reasons, mostly ROW related, this circuit was over the 5-yr rolling average.

Actions:
 This circuit was is scheduled to be trimmed again in 2014. When ever possible Owen Electric field personnel install wildlife guards on our equipment to help mitigate outages caused by wildlife activity and we will continue to do so. There is no further action at this time.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 4

5.4.1 SUBSTATION NAME AND NUMBER	GRANTSLICK, Sub No. 3
5.4.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Campbell
5.4.3 CIRCUIT NAME AND NUMBER	GRANTSLICK, Circuit 2, 0302
5.4.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.4.5 TOTAL CIRCUIT LENGTH (MILES)	56.8
5.4.6 CUSTOMER COUNT FOR THIS CIRCUIT	733
5.4.7 DATE OF LAST CIRCUIT TRIM (VM)	2013

5.4.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	11.37%	13.62%
Equipment/Installation	3.10%	1.37%
Member/Public	0.17%	0.53%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	7.32%	22.08%
Unknown	8.27%	10.94%
Weather	64.08%	46.41%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	5.68%	5.05%

5.4.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	133.990
5.4.10 REPORTING YEAR (SAIDI)	167.380
5.4.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	34.892
5.4.12 REPORTING YEAR (SAIFI)	1.760

5.4.13 CORRECTIVE ACTION PLAN:

This feeder is located in rural rugged terrain in Campbell county and is on the outer perimeter of our service territory with limited backfeeding opportunities. During a line of strong storms an over-current device was operated to lock-out and after verifying the circuit was clear visually the circuit was energized and held without further problem. Additionally, there were several scheduled construction jobs to change out poles or to replace small and/or aged conductor which required the lines be de-energized in order to perform the work safely.

Action:

Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. Owen Electric has also been reducing span lengths to minimize the effects of strong winds as part of our circuit hardening program.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 5

5.5.1 SUBSTATION NAME AND NUMBER	MUNK, Sub No. 4
5.5.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.5.3 CIRCUIT NAME AND NUMBER	MUNK, Circuit 1, 0401
5.5.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.5.5 TOTAL CIRCUIT LENGTH (MILES)	28.6
5.5.6 CUSTOMER COUNT FOR THIS CIRCUIT	361
5.5.7 DATE OF LAST CIRCUIT TRIM (VM)	2013

5.5.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	65.80%	71.55%
Birds/Animals	1.63%	1.98%
Equipment/Installation	23.50%	20.26%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	1.77%	0.92%
Scheduled	1.36%	0.27%
Unknown	4.22%	3.44%
Weather	1.70%	1.57%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.5.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	104.047
5.5.10 REPORTING YEAR (SAIDI)	362.920
5.5.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	19.202
5.5.12 REPORTING YEAR (SAIFI)	4.570

5.5.13 CORRECTIVE ACTION PLAN:

This circuit has a lot of cross county (i.e. difficult to access) primary line just outside the substation which extends through Gallatin County. The primary reason for this circuit exceeding it's previous 5-yr rolling average was a failed substation over current device which contributed to nearly 70% over the overall circuits outage contribution.

Actions:
 EKPC has a good maintenance program and continues to work on providing the best cost effective solution to serve Owen Electric as well as our membership. No further action is necessary at this time from Owen Electric.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 6

5.6.1 SUBSTATION NAME AND NUMBER	MUNK, Sub No. 4
5.6.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.6.3 CIRCUIT NAME AND NUMBER	MUNK, Circuit 2, 0402
5.6.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.6.5 TOTAL CIRCUIT LENGTH (MILES)	51.3
5.6.6 CUSTOMER COUNT FOR THIS CIRCUIT	736
5.6.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.6.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.52%	0.36%
Equipment/Installation	0.31%	0.24%
Member/Public	29.83%	12.16%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	9.36%	5.20%
Unknown	16.22%	7.97%
Weather	43.76%	74.07%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.6.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	125.503
5.6.10 REPORTING YEAR (SAIDI)	191.430
5.6.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	23.882
5.6.12 REPORTING YEAR (SAIFI)	1.470

5.6.13 CORRECTIVE ACTION PLAN:

This circuit runs through difficult cross county terrain just outside the substation in Gallatin county which makes it difficult to access and repair cross country outages. A singular outage caused by downed power lines in a cross county section resulted in 73% of this circuits outage duration contribution.

Actions:

Owen Electric will continue to explore oppurtunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 7

5.7.1	SUBSTATION NAME AND NUMBER	BROMLEY, Sub No. 6
5.7.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Owen
5.7.3	CIRCUIT NAME AND NUMBER	BROMLEY, Circuit 2, 0602
5.7.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.7.5	TOTAL CIRCUIT LENGTH (MILES)	52.9
5.7.6	CUSTOMER COUNT FOR THIS CIRCUIT	481
5.7.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.7.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	1.24%	1.55%
Equipment/Installation	1.10%	1.93%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	14.92%	31.23%
Unknown	0.97%	1.70%
Weather	9.94%	32.38%
Age/Deterioration	71.82%	31.21%
R.O.W. Preventable	0.00%	0.00%

5.7.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	56.737
5.7.10	REPORTING YEAR (SAIDI)	66.750
5.7.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	19.218
5.7.12	REPORTING YEAR (SAIFI)	1.660

5.7.13 CORRECTIVE ACTION PLAN:

An under-arm switch failed on an mainline pole, along with scheduled outages for routine maintenance and line improvements, resulted in pushing this circuit over the 5-yr rolling average.

Action:
 Without these outages the circuit would have been below the rolling 5-yr average so no further action is necessary. Owen Electric will continue to explore oppurtunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. Owen has an established line inspection program and a preventative maintenance program in place.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 8

5.8.1 SUBSTATION NAME AND NUMBER	PENN, Sub No. 7
5.8.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Scott
5.8.3 CIRCUIT NAME AND NUMBER	PENN, Circuit 1, 0701
5.8.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.8.5 TOTAL CIRCUIT LENGTH (MILES)	44.9
5.8.6 CUSTOMER COUNT FOR THIS CIRCUIT	423
5.8.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.8.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.45%	0.29%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	2.37%	0.44%
Scheduled	8.81%	26.09%
Unknown	5.08%	8.39%
Weather	41.81%	64.04%
Age/Deterioration	41.36%	0.65%
R.O.W. Preventable	0.00%	0.00%

5.8.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	106.440
5.8.10 REPORTING YEAR (SAIDI)	244.210
5.8.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	31.722
5.8.12 REPORTING YEAR (SAIFI)	2.400

5.8.13 CORRECTIVE ACTION PLAN:

This feeder is located in a rugged and rural portion of northern Scott county and is on the outer perimeter of our service territory with limited backfeeding opportunities. During a line of intense snow storms the substation over-current device operated to lock-out and after verifying the circuit was clear visually the circuit was energized and held without further problem. Afterwards a daytime inspection of the line found a broken cut-out, which possibly caused the previous outage, and the circuit was de-energized to allow field personnel to remove the failed equipment.

Action:
Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 9

5.9.1 SUBSTATION NAME AND NUMBER	BULLITTSVILLE, Sub No. 8
5.9.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.9.3 CIRCUIT NAME AND NUMBER	BULLITTSVILLE, Circuit 1, 0801
5.9.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.9.5 TOTAL CIRCUIT LENGTH (MILES)	9.9
5.9.6 CUSTOMER COUNT FOR THIS CIRCUIT	271
5.9.7 DATE OF LAST CIRCUIT TRIM (VM)	2011

5.9.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.99%	0.84%
Equipment/Installation	0.00%	0.00%
Member/Public	98.82%	98.84%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	0.20%	0.32%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.9.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.503
5.9.10 REPORTING YEAR (SAIDI)	141.490
5.9.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	2.930
5.9.12 REPORTING YEAR (SAIFI)	1.950

5.9.13 CORRECTIVE ACTION PLAN:

A late evening Motor Vehicle Accident involving a truck which hit and broke a 3-phase mainline pole. The accident caused an extended outage which was compounded by a failed substation over-current device control that is owned and maintained by EKPC.

Action:

Without this outage the circuit would have performed well below the 5 year rolling average. Owen Electric designs overhead lines to NESC and RUS specifications and recommendations. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. EKPC has a good maintenance program and continues to work on providing the best cost effective solution to serve Owen Electric as well as our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 10

5.10.1 SUBSTATION NAME AND NUMBER	TURKEYFOOT, Sub No. 10
5.10.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.10.3 CIRCUIT NAME AND NUMBER	TURKEYFOOT, Circuit 2, 1002
5.10.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.10.5 TOTAL CIRCUIT LENGTH (MILES)	4.0
5.10.6 CUSTOMER COUNT FOR THIS CIRCUIT	242
5.10.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.10.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	5.56%	0.52%
Equipment/Installation	0.00%	0.00%
Member/Public	94.44%	99.48%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	0.00%	0.00%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.10.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	46.340
5.10.10 REPORTING YEAR (SAIDI)	55.160
5.10.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	10.376
5.10.12 REPORTING YEAR (SAIFI)	0.150

5.10.13 CORRECTIVE ACTION PLAN:

A late afternoon a Motor Vehicle Accident involving a truck which hit a transformer resulted in an extended outage.

Action:
 Without this outage the circuit would have performed well below the 5 year rolling average. Owen Electric designs overhead lines to NESC and RUS specifications and recommendations. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 11

5.11.1 SUBSTATION NAME AND NUMBER	TURKEYFOOT, Sub No. 10
5.11.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.11.3 CIRCUIT NAME AND NUMBER	TURKEYFOOT, Circuit 3, 1003
5.11.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.11.5 TOTAL CIRCUIT LENGTH (MILES)	2.6
5.11.6 CUSTOMER COUNT FOR THIS CIRCUIT	190
5.11.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.11.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	2.41%	1.90%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	97.59%	98.10%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.11.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	23.975
5.11.10 REPORTING YEAR (SAIDI)	34.430
5.11.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	18.018
5.11.12 REPORTING YEAR (SAIFI)	0.450

5.11.13 CORRECTIVE ACTION PLAN:

No unusual activity occurred on this circuit for the 2013 calendar year.

Action:
 Owen Electric has modified it's callout procedure for on-call crews in an effort to improve response time to outages however the three outages on this feeder for 2013 were small line fuse outages that the service technicians handled. When ever possible Owen Electric field personnel install wildlife guards on our equipment to help mitigate outages caused by wildlife activity and we will continue to do so. There is no further action at this time.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 12

5.12.1 SUBSTATION NAME AND NUMBER	TURKEYFOOT, Sub No. 10
5.12.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.12.3 CIRCUIT NAME AND NUMBER	TURKEYFOOT, Circuit 4, 1004
5.12.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.12.5 TOTAL CIRCUIT LENGTH (MILES)	13.6
5.12.6 CUSTOMER COUNT FOR THIS CIRCUIT	776
5.12.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.12.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	4.21%	0.73%
Equipment/Installation	1.62%	0.57%
Member/Public	79.16%	95.36%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	6.05%	1.03%
Weather	8.96%	2.30%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.12.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	103.253
5.12.10 REPORTING YEAR (SAIDI)	333.640
5.12.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	6.054
5.12.12 REPORTING YEAR (SAIFI)	1.270

5.12.13 CORRECTIVE ACTION PLAN:

A Motor Vehicle Accident damaged a 3-phase primary line on Independence Station Road in Kenton County.

Action:
 Without this outage the circuit would have performed well below the 5-yr rolling average. Owen Electric designs overhead lines to NESC and RUS specifications and recommendations. Owen Electric will continue to explore oppurtunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 13

5.13.1 SUBSTATION NAME AND NUMBER	TURKEYFOOT, Sub No. 10
5.13.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.13.3 CIRCUIT NAME AND NUMBER	TURKEYFOOT, Circuit 9, 1009
5.13.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.13.5 TOTAL CIRCUIT LENGTH (MILES)	4.5
5.13.6 CUSTOMER COUNT FOR THIS CIRCUIT	408
5.13.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.13.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.00%	0.00%
Equipment/Installation	57.82%	55.48%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	37.02%	35.45%
Unknown	0.44%	0.18%
Weather	0.00%	0.00%
Age/Deterioration	4.72%	8.89%
R.O.W. Preventable	0.00%	0.00%

5.13.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	52.882
5.13.10 REPORTING YEAR (SAIDI)	246.470
5.13.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	7.642
5.13.12 REPORTING YEAR (SAIFI)	1.450

5.13.13 CORRECTIVE ACTION PLAN:

This circuit serves suburban areas in central Kenton County. The most significant outage for this circuit was due to equipment failure in a self-healing scheme between this circuit and Richardson 1902. It was determined that an internal failure of the switching equipment used as part of the automated healing system resulted in a feeder outage on this circuit as well.

Actions:
As a result of this incident Owen Electric has reviewed our preventative maintenance program and is including these devices in this program. Owen Electric returned the equipment that failed to the manufacturer to determine the root cause in order to determine if this could affect other like equipment on our lines.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 14

5.14.1	SUBSTATION NAME AND NUMBER	CARSON, Sub No. 11
5.14.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.14.3	CIRCUIT NAME AND NUMBER	CARSON, Circuit 2, 1102
5.14.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.14.5	TOTAL CIRCUIT LENGTH (MILES)	57.8
5.14.6	CUSTOMER COUNT FOR THIS CIRCUIT	761
5.14.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.14.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.28%	0.14%
Equipment/Installation	0.00%	0.00%
Member/Public	0.22%	0.41%
R.O.W. Unpreventable	44.35%	32.20%
Scheduled	12.64%	16.17%
Unknown	1.50%	0.77%
Weather	40.85%	50.18%
Age/Deterioration	0.17%	0.13%
R.O.W. Preventable	0.00%	0.00%

5.14.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	215.095
5.14.10	REPORTING YEAR (SAIDI)	330.900
5.14.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	87.238
5.14.12	REPORTING YEAR (SAIFI)	2.810

5.14.13 CORRECTIVE ACTION PLAN:

These feeder is located in rural rugged terrain in Gallatin and Carrol counties and is on the outer perimeter of our service territory with limited backfeeding oppurtunities. During several storms through the year trees, from outside the ROW fell into our lines causing over 30% of outage contributions. Additionally, there were several scheduled construction jobs to change out poles or conductor which required the lines be de-energized in order to perform the work safely.

Action:

Owen Electric will continue to explore oppurtunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 15

5.15.1	SUBSTATION NAME AND NUMBER	CARSON, Sub No. 11
5.15.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.15.3	CIRCUIT NAME AND NUMBER	CARSON, Circuit 3, 1103
5.15.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.15.5	TOTAL CIRCUIT LENGTH (MILES)	85.2
5.15.6	CUSTOMER COUNT FOR THIS CIRCUIT	954
5.15.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.15.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.11%	0.16%
Equipment/Installation	15.11%	12.96%
Member/Public	0.07%	0.19%
R.O.W. Unpreventable	1.87%	2.02%
Scheduled	26.97%	42.19%
Unknown	0.62%	0.52%
Weather	51.56%	38.98%
Age/Deterioration	3.70%	2.97%
R.O.W. Preventable	0.00%	0.00%

5.15.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	186.215
5.15.10	REPORTING YEAR (SAIDI)	268.870
5.15.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	83.908
5.15.12	REPORTING YEAR (SAIFI)	3.330

5.15.13 CORRECTIVE ACTION PLAN:

This feeder is located in rural rugged terrain in Gallatin and Carrol counties on the perimeter of our service territory with limited backfeeding opportunities. During a line of strong storms an over-current device was struck by lightning and nearly 30% of the overall member minutes without power. Additionally, there were several scheduled construction jobs to change out poles or move conductor which required the lines be de-energized in order to perform the work safely.

Action:
 Without this outage the circuit would have been below the rolling 5-yr average so no further action is necessary. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. Owen Electric has also begun utilizing a pole loading software package to aid with the design of our construction jobs.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 16

5.16.1 SUBSTATION NAME AND NUMBER	KEITH, Sub No. 13
5.16.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Owen
5.16.3 CIRCUIT NAME AND NUMBER	KEITH, Circuit 2, 1302
5.16.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.16.5 TOTAL CIRCUIT LENGTH (MILES)	67.3
5.16.6 CUSTOMER COUNT FOR THIS CIRCUIT	669
5.16.7 DATE OF LAST CIRCUIT TRIM (VM)	2012

5.16.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	12.04%	6.45%
Equipment/Installation	0.07%	0.04%
Member/Public	0.47%	0.33%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	7.39%	7.49%
Weather	68.26%	57.32%
Age/Deterioration	11.78%	28.37%
R.O.W. Preventable	0.00%	0.00%

5.16.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	104.063
5.16.10 REPORTING YEAR (SAIDI)	180.580
5.16.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	11.018
5.16.12 REPORTING YEAR (SAIFI)	2.320

5.16.13 CORRECTIVE ACTION PLAN:

This circuit runs through rural sections of Owen County and experienced outages related to multiple causes, but the largest contributing reason was cold weather related. The causes included an ice laden tree falling from outside the ROW into the main 3-phase line and over-current device overloading due to extreme cold weather. Additionally, this circuit experienced a lot of lightning related outages.

Actions:
 Owen Electric has reviewed coordination and sectionalizing methods applied to the individual tap which experienced trouble and corrected the problem. Additionally, Owen Electric has reviewed the line construction practices pertaining to the placement of lightning arrestors to improve the accessibility of these line devices to provide improved lightning protection.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 17

5.17.1	SUBSTATION NAME AND NUMBER	SMITH, Sub No. 15
5.17.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.17.3	CIRCUIT NAME AND NUMBER	SMITH, Circuit 3, 1503
5.17.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.17.5	TOTAL CIRCUIT LENGTH (MILES)	5.1
5.17.6	CUSTOMER COUNT FOR THIS CIRCUIT	80
5.17.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.17.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	58.12%	60.54%
Birds/Animals	17.09%	22.77%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	17.09%	13.04%
Weather	3.42%	2.30%
Age/Deterioration	4.27%	1.35%
R.O.W. Preventable	0.00%	0.00%

5.17.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	82.427
5.17.10	REPORTING YEAR (SAIDI)	141.450
5.17.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	13.640
5.17.12	REPORTING YEAR (SAIFI)	1.710

5.17.13 CORRECTIVE ACTION PLAN:

This circuit serves a residential and commercial portion of northern Boone County. While the substation is owned and maintained by East Kentucky Power, the transmission feed and generation source for this substaiton is Duke Energy. This circuit experienced a power outage that was a result of the loss of transmission feed to the substation due to a tranmission jumper falling at the Miami Fort Plant.

Actions:
Owen Electric and EKPC regularly meet to discuss reliability concerns and develop remediation plans. Owen Electric, through EKPC, has communicated with Duke Energy regarding the reliability concerns and Duke has drawn up plans to provide better switching and backfeeding capability to our northern substations. Owen Electric and EKPC will continue to hold dialog with Duke Energy.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 18

5.18.1 SUBSTATION NAME AND NUMBER	SMITH, Sub No. 15
5.18.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.18.3 CIRCUIT NAME AND NUMBER	SMITH, Circuit 5, 1505
5.18.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.18.5 TOTAL CIRCUIT LENGTH (MILES)	8.4
5.18.6 CUSTOMER COUNT FOR THIS CIRCUIT	103
5.18.7 DATE OF LAST CIRCUIT TRIM (VM)	2011

5.18.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	49.49%	48.96%
Birds/Animals	0.00%	0.00%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	21.94%	24.23%
Weather	23.47%	15.17%
Age/Deterioration	0.51%	0.92%
R.O.W. Preventable	4.59%	10.72%

5.18.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	87.213
5.18.10 REPORTING YEAR (SAIDI)	181.230
5.18.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	29.526
5.18.12 REPORTING YEAR (SAIFI)	2.080

5.18.13 CORRECTIVE ACTION PLAN:

This circuit serves a residential and commercial portion of northern Boone County. While the substation is owned and maintained by East Kentucky Power the transmission feed and generation source for this substation is Duke Energy. This circuit experienced a power outage that was a result of the loss of transmission feed to the substation due to a transmission jumper falling at the Miami Fort Plant.

Actions:
 Owen Electric and EKPC regularly meet to discuss reliability concerns and develop remediation plans. Owen Electric, through EKPC, has communicated with Duke Energy regarding the reliability concerns and Duke has drawn up plans to provide better switching and backfeeding capability to our northern substations. Owen Electric and EKPC will continue to hold dialog with Duke Energy.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 19

5.19.1	SUBSTATION NAME AND NUMBER	SMOOT, Sub No. 16
5.19.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.19.3	CIRCUIT NAME AND NUMBER	SMOOT, Circuit 2, 1602
5.19.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.19.5	TOTAL CIRCUIT LENGTH (MILES)	18.4
5.19.6	CUSTOMER COUNT FOR THIS CIRCUIT	1324
5.19.7	DATE OF LAST CIRCUIT TRIM (VM)	2013

5.19.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	2.36%	1.05%
Equipment/Installation	2.42%	1.50%
Member/Public	1.27%	0.45%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	41.95%	34.16%
Unknown	5.45%	3.90%
Weather	44.73%	57.08%
Age/Deterioration	1.63%	1.67%
R.O.W. Preventable	0.18%	0.19%

5.19.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	65.908
5.19.10	REPORTING YEAR (SAIDI)	151.500
5.19.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	5.360
5.19.12	REPORTING YEAR (SAIFI)	1.300

5.19.13 CORRECTIVE ACTION PLAN:

During several storms in 2013 there were outages resulting from lines slapping mid-spans. Additionally, there were several scheduled construction jobs to change out or move poles or to replace small and/or aged conductor which required the lines be de-energized in order to perform the work safely.

Action:
Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. Owen Electric has also been reducing span lengths to minimize the effects of strong winds as part of our circuit hardening program and we are investigating methods to better mitigate the effects of lightning on our system.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 20

5.20.1	SUBSTATION NAME AND NUMBER	DURO, Sub No. 17
5.20.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.20.3	CIRCUIT NAME AND NUMBER	DURO, Circuit 7, 1707
5.20.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.20.5	TOTAL CIRCUIT LENGTH (MILES)	1.3
5.20.6	CUSTOMER COUNT FOR THIS CIRCUIT	9
5.20.7	DATE OF LAST CIRCUIT TRIM (VM)	2013

5.20.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
*****	0.00%	0.00%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	100.00%	100.00%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.20.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	2.500
5.20.10	REPORTING YEAR (SAIDI)	7.330
5.20.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.200
5.20.12	REPORTING YEAR (SAIFI)	0.110

5.20.13 CORRECTIVE ACTION PLAN:

There was a single outage on this circuit for all of 2013 and this particular outage resulted from a melted fuse on a riser pole to an industrial customer.

Action:
No action to be taken. Owen Electric will continue to work with our members to ensure that we are notified of any load changes on their side that may impact our equipments performance or the safety of our field personnel.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 21

5.21.1 SUBSTATION NAME AND NUMBER	GALLATIN, Sub No. 18
5.21.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.21.3 CIRCUIT NAME AND NUMBER	GALLATIN, Circuit 3, 1803
5.21.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.21.5 TOTAL CIRCUIT LENGTH (MILES)	5.6
5.21.6 CUSTOMER COUNT FOR THIS CIRCUIT	39
5.21.7 DATE OF LAST CIRCUIT TRIM (VM)	2013

5.21.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	11.11%	4.86%
Equipment/Installation	0.00%	0.00%
Member/Public	55.56%	72.12%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	33.33%	23.02%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.21.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	11.648
5.21.10 REPORTING YEAR (SAIDI)	33.950
5.21.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	2.046
5.21.12 REPORTING YEAR (SAIFI)	0.480

5.21.13 CORRECTIVE ACTION PLAN:

A dig-in accident resulted in a feeder lock-out and caused extended outage.

Action:
 Without this outage the circuit would have performed well below the 5 year rolling average. Owen Electric designs overhead lines to NESC and RUS specifications and recommendations. Owen Electric will continue to explore oppurtunitiess to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. EKPC has a good maintenance program and continues to work on providing the best cost effective solution to serve Owen Electric as well as our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 22

5.22.1	SUBSTATION NAME AND NUMBER	RICHARDSON, Sub No. 19
5.22.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.22.3	CIRCUIT NAME AND NUMBER	RICHARDSON, Circuit 2, 1902
5.22.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.22.5	TOTAL CIRCUIT LENGTH (MILES)	16.9
5.22.6	CUSTOMER COUNT FOR THIS CIRCUIT	1127
5.22.7	DATE OF LAST CIRCUIT TRIM (VM)	2013

5.22.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.09%	0.02%
Equipment/Installation	98.63%	98.49%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.27%	0.17%
Unknown	0.00%	0.00%
Weather	1.01%	1.31%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.22.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	79.067
5.22.10	REPORTING YEAR (SAIDI)	177.640
5.22.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	9.264
5.22.12	REPORTING YEAR (SAIFI)	1.000

5.22.13 CORRECTIVE ACTION PLAN:

This circuit has a long span of cross county (i.e. difficult to access) line just outside the substation in Kenton County. The most significant outage for this circuit was due to a lightning arrester failing between the substation and the first set of over current devices on section of cross county line.

Actions:

Owen Electric has reviewed the line construction practices pertaining to the placement of lightning arrestors to improve the accessibility of these line devices.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 23

5.23.1	SUBSTATION NAME AND NUMBER	RICHARDSON, Sub No. 19
5.23.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.23.3	CIRCUIT NAME AND NUMBER	RICHARDSON, Circuit 3, 1903
5.23.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.23.5	TOTAL CIRCUIT LENGTH (MILES)	17.6
5.23.6	CUSTOMER COUNT FOR THIS CIRCUIT	857
5.23.7	DATE OF LAST CIRCUIT TRIM (VM)	2013

5.23.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.44%	0.09%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	44.30%	16.71%
Scheduled	0.28%	0.11%
Unknown	4.13%	1.55%
Weather	50.30%	80.94%
Age/Deterioration	0.55%	0.60%
R.O.W. Preventable	0.00%	0.00%

5.23.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	63.067
5.23.10	REPORTING YEAR (SAIDI)	433.970
5.23.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	18.802
5.23.12	REPORTING YEAR (SAIFI)	2.240

5.23.13 CORRECTIVE ACTION PLAN:

An overhead switch pole was struck by lightning and contributed to nearly 81% of the overall member minutes off for the year.

Action:
 Without this outage the circuit would have been below the rolling 5-yr average so no further action is necessary. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 24

5.24.1	SUBSTATION NAME AND NUMBER	DOWNING, Sub No. 20
5.24.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.24.3	CIRCUIT NAME AND NUMBER	DOWNING, Circuit 1, 2001
5.24.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.24.5	TOTAL CIRCUIT LENGTH (MILES)	17.2
5.24.6	CUSTOMER COUNT FOR THIS CIRCUIT	1160
5.24.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.24.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	50.00%	67.63%
Birds/Animals	0.26%	0.26%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	49.74%	32.11%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.24.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	97.763
5.24.10	REPORTING YEAR (SAIDI)	131.160
5.24.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	42.186
5.24.12	REPORTING YEAR (SAIFI)	2.020

5.24.13 CORRECTIVE ACTION PLAN:

This circuit serves a residential and commercial portion of northern Boone County. While the substation is owned and maintained by East Kentucky Power the transmission feed and generation source for this substation is Duke Energy. This circuit experienced a power outage that was a result of the loss of transmission feed to the substation due to a transmission jumper failing at the Miami Fort Plant.

Actions:
 Owen Electric and EKPC regularly meet to discuss reliability concerns and develop remediation plans. Owen Electric, through EKPC, has communicated with Duke Energy regarding the reliability concerns and Duke has drawn up plans to provide better switching and backfeeding capability to our northern substations. Owen Electric and EKPC will continue to hold dialog with Duke Energy.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 25

5.25.1 SUBSTATION NAME AND NUMBER	BAVARIAN, Sub No. 23
5.25.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.25.3 CIRCUIT NAME AND NUMBER	BAVARIAN, Circuit 1, 2301
5.25.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.25.5 TOTAL CIRCUIT LENGTH (MILES)	24.7
5.25.6 CUSTOMER COUNT FOR THIS CIRCUIT	417
5.25.7 DATE OF LAST CIRCUIT TRIM (VM)	2010

5.25.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	26.83%	16.09%
Equipment/Installation	9.51%	16.55%
Member/Public	3.17%	4.58%
R.O.W. Unpreventable	4.88%	6.05%
Scheduled	5.12%	8.16%
Unknown	17.32%	12.10%
Weather	22.93%	20.69%
Age/Deterioration	10.24%	15.79%
R.O.W. Preventable	0.00%	0.00%

5.25.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	80.747
5.25.10 REPORTING YEAR (SAIDI)	94.250
5.25.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	7.762
5.25.12 REPORTING YEAR (SAIFI)	1.050

5.25.13 CORRECTIVE ACTION PLAN:

This circuit serves a residential and commercial portion of southern Boone County. This circuit experienced an unusual number of power outages that coincided with directional boring as part of underground cable replacement project.

Actions:
 Without the outages related to the aged direct bury underground cable being replaced this circuit would have fallen well below the 5-yr rolling average and therefore no corrective action is necessary. However, Owen Electric is committed to providing cost effective reliability power to our membership and we will monitor underground projects in the future for such anomalies.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 26

5.26.1 SUBSTATION NAME AND NUMBER	BURLINGTON, Sub No. 24
5.26.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.26.3 CIRCUIT NAME AND NUMBER	BURLINGTON, Circuit 3, 2403
5.26.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.26.5 TOTAL CIRCUIT LENGTH (MILES)	20.0
5.26.6 CUSTOMER COUNT FOR THIS CIRCUIT	1034
5.26.7 DATE OF LAST CIRCUIT TRIM (VM)	2010

5.26.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	2.06%	1.12%
Equipment/Installation	5.55%	6.74%
Member/Public	79.32%	76.65%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	1.74%	4.64%
Unknown	2.46%	1.43%
Weather	4.91%	5.94%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	3.96%	3.49%

5.26.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	45.637
5.26.10 REPORTING YEAR (SAIDI)	113.260
5.26.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	4.476
5.26.12 REPORTING YEAR (SAIFI)	1.270

5.26.13 CORRECTIVE ACTION PLAN:

A Motor Vehicle Accident, involving a garbage truck on an early morning run, became snagged on telephone lines and continued driving eventually breaking several telephone poles. The accident culminated in the breaking of an Owen Electric 3-phone main line pole to which the telephone lines were also attached.

Action:

Without this outage the circuit would have performed well below the 5-yr rolling average. Owen Electric designs overhead lines to NESC and RUS specifications and recommendations. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 27

5.27.1	SUBSTATION NAME AND NUMBER	STERLING, Sub No. 25
5.27.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.27.3	CIRCUIT NAME AND NUMBER	STERLING, Circuit 1, 2501
5.27.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.27.5	TOTAL CIRCUIT LENGTH (MILES)	43.2
5.27.6	CUSTOMER COUNT FOR THIS CIRCUIT	611
5.27.7	DATE OF LAST CIRCUIT TRIM (VM)	2010

5.27.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	1.84%	0.87%
Equipment/Installation	0.00%	0.00%
Member/Public	0.12%	0.05%
R.O.W. Unpreventable	32.56%	50.67%
Scheduled	16.03%	17.46%
Unknown	10.28%	4.01%
Weather	38.80%	26.56%
Age/Deterioration	0.24%	0.17%
R.O.W. Preventable	0.12%	0.22%

5.27.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	211.048
5.27.10	REPORTING YEAR (SAIDI)	294.560
5.27.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	148.400
5.27.12	REPORTING YEAR (SAIFI)	1.580

5.27.13 CORRECTIVE ACTION PLAN:

This circuit has a lot of cross county (i.e. difficult to access) line just outside the substation in Gallatin and Southern Boone County which make it difficult to access and repair ROW related outages. One unpreventable outage caused by a tree from outside our ROW resulted in nearly 50% of the overall outage duration contribution for this circuit.

Actions:

Owen Electric is scheduled to trim this circuit again in 2014 and attention will be placed on hazard trees that may be a problem in storms.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 28

5.28.1	SUBSTATION NAME AND NUMBER	STERLING, Sub No. 25
5.28.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin
5.28.3	CIRCUIT NAME AND NUMBER	STERLING, Circuit 3, 2503
5.28.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.28.5	TOTAL CIRCUIT LENGTH (MILES)	32.1
5.28.6	CUSTOMER COUNT FOR THIS CIRCUIT	365
5.28.7	DATE OF LAST CIRCUIT TRIM (VM)	2010

5.28.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	24.51%	30.79%
Birds/Animals	0.00%	0.00%
Equipment/Installation	0.08%	0.05%
Member/Public	32.45%	26.83%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	15.28%	12.38%
Weather	22.77%	19.22%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	4.92%	10.73%

5.28.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	211.262
5.28.10	REPORTING YEAR (SAIDI)	492.260
5.28.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	133.836
5.28.12	REPORTING YEAR (SAIFI)	4.100

5.28.13 CORRECTIVE ACTION PLAN:

This circuit has a lot of cross county (i.e. difficult to access) line just outside the substation in Gallatin and Southern Boone County which makes it difficult to access and repair ROW related outages including a ROW outage that was a result of an unidentified person(s) cutting down a tree which fell into our 3-phase main line. In addition, equipment failure of East Kentucky Power's over current device resulted in an extended outage that contributed significantly to the overall feeder performance.

Actions:

Owen Electric is scheduled to trim this circuit again in 2014 and attention will be placed on hazard trees that may be a problem in storms. EKPC has a good maintenance program and continues to work on providing the best cost effective solution to serve Owen Electric as well as our membership.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 29

5.29.1	SUBSTATION NAME AND NUMBER	GRANTSLICK II, Sub No. 51
5.29.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Campbell
5.29.3	CIRCUIT NAME AND NUMBER	GRANTSLICK II, Circuit 1, 5101
5.29.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.29.5	TOTAL CIRCUIT LENGTH (MILES)	132.5
5.29.6	CUSTOMER COUNT FOR THIS CIRCUIT	1571
5.29.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.29.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	0.52%	0.18%
Equipment/Installation	5.58%	3.06%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	30.35%	13.64%
Scheduled	30.09%	53.15%
Unknown	10.16%	10.92%
Weather	16.83%	13.57%
Age/Deterioration	6.37%	5.42%
R.O.W. Preventable	0.09%	0.06%

5.29.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	175.562
5.29.10	REPORTING YEAR (SAIDI)	224.440
5.29.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	34.012
5.29.12	REPORTING YEAR (SAIFI)	1.590

5.29.13 CORRECTIVE ACTION PLAN:

This circuit was part of Owen Electric plan to replace aging and small conductor for improved reliability and being a perimeter circuit it was selected to be one of the first circuits to complete. In order to perform these upgrades safely those sections needed to be de-energized for several hours at a time.

Action:
Excluding these scheduled outages the circuit would have performed below the 5-yr rolling average. No further action is necessary at this time.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 30

5.30.1	SUBSTATION NAME AND NUMBER	SMITH II, Sub No. 52
5.30.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.30.3	CIRCUIT NAME AND NUMBER	SMITH II, Circuit 1, 5201
5.30.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.30.5	TOTAL CIRCUIT LENGTH (MILES)	3.3
5.30.6	CUSTOMER COUNT FOR THIS CIRCUIT	68
5.30.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.30.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI Contribution	SAIDI Contribution
Power Supplier	98.67%	98.90%
Birds/Animals	0.00%	0.00%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	0.00%	0.00%
Weather	1.33%	1.10%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.30.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	5.467
5.30.10	REPORTING YEAR (SAIDI)	88.390
5.30.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	6.310
5.30.12	REPORTING YEAR (SAIFI)	1.030

5.30.13 CORRECTIVE ACTION PLAN:

This circuit serves a residential and commercial portion of northern Boone County. While the substation is owned and maintained by East Kentucky Power, the transmission feed and generation source for this substation is Duke Energy. This circuit experienced a power outage that was a result of the loss of transmission feed to the substation due to a transmission jumper failing at the Miami Fort Plant.

Actions:
 Owen Electric and EKPC regularly meet to discuss reliability concerns and develop remediation plans. Owen Electric, through EKPC, has communicated with Duke Energy regarding the reliability concerns and Duke has drawn up plans to provide better switching and backfeeding capability to our northern substations. Owen Electric and EKPC will continue to hold dialog with Duke Energy.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 31

5.31.1 SUBSTATION NAME AND NUMBER	DURO II, Sub No. 54
5.31.2 SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.31.3 CIRCUIT NAME AND NUMBER	DURO II, Circuit 3, 5403
5.31.4 CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.31.5 TOTAL CIRCUIT LENGTH (MILES)	12.7
5.31.6 CUSTOMER COUNT FOR THIS CIRCUIT	417
5.31.7 DATE OF LAST CIRCUIT TRIM (VM)	2013

5.31.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	2.78%	0.34%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	0.00%	0.00%
Weather	96.06%	99.56%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	1.16%	0.10%

5.31.9 CIRCUIT 5 YEAR AVERAGE (SAIDI)	12.212
5.31.10 REPORTING YEAR (SAIDI)	577.380
5.31.11 CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.014
5.31.12 REPORTING YEAR (SAIFI)	1.060

5.31.13 CORRECTIVE ACTION PLAN:

During a line of strong storms a riser pole was broken and contributed nearly 96% of the overall member minutes off for the year.

Action:
 Without this outage the circuit would have been below the rolling 5-yr average so no further action is necessary. Owen Electric will continue to explore opportunities to design additional circuit tie points for backfeeding during such events to reduce outage duration for our membership. Owen Electric has also begun utilizing a pole loading software package to aid with the design of our construction jobs.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 32

5.32.1	SUBSTATION NAME AND NUMBER	BRISTOW II, Sub No. 56
5.32.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Kenton
5.32.3	CIRCUIT NAME AND NUMBER	BRISTOW II, Circuit 8, 5608
5.32.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.32.5	TOTAL CIRCUIT LENGTH (MILES)	8.7
5.32.6	CUSTOMER COUNT FOR THIS CIRCUIT	690
5.32.7	DATE OF LAST CIRCUIT TRIM (VM)	2012

5.32.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	0.00%	0.00%
Birds/Animals	83.33%	66.57%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	0.00%	0.00%
Unknown	0.00%	0.00%
Weather	16.67%	33.43%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.32.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	8.747
5.32.10	REPORTING YEAR (SAIDI)	14.940
5.32.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	7.548
5.32.12	REPORTING YEAR (SAIFI)	0.270

5.32.13 CORRECTIVE ACTION PLAN:

This circuit serves suburban areas in Kenton County and this circuit was flagged as a result of the SAIDI index being higher than the 5-yr rolling average.

Actions:
 Owen Electric routinely evaluates sectionalizing oppurtunies and equipment to improve reliability including wildlife guards for our equipment. As part of standard practice all work performed on equipment that doesn't have wildlife guards will have them installed or a work request will be created to have them installed at a later date. Owen Electric will evaluate the line section that was out multiple times during the year.

KENTUCKY PUBLIC SERVICE COMMISSION

Circuit # 33

5.33.1	SUBSTATION NAME AND NUMBER	DOWNING II, Sub No. 57
5.33.2	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boone
5.33.3	CIRCUIT NAME AND NUMBER	DOWNING II, Circuit 7, 5707
5.33.4	CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)	See Cooperative for details
5.33.5	TOTAL CIRCUIT LENGTH (MILES)	4.4
5.33.6	CUSTOMER COUNT FOR THIS CIRCUIT	51
5.33.7	DATE OF LAST CIRCUIT TRIM (VM)	2011

5.33.8 LIST OF OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Outage Cause	SAIFI Contribution	SAIDI Contribution
Power Supplier	95.83%	95.86%
Birds/Animals	0.00%	0.00%
Equipment/Installation	0.00%	0.00%
Member/Public	0.00%	0.00%
R.O.W. Unpreventable	0.00%	0.00%
Scheduled	4.17%	4.14%
Unknown	0.00%	0.00%
Weather	0.00%	0.00%
Age/Deterioration	0.00%	0.00%
R.O.W. Preventable	0.00%	0.00%

5.33.9	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.237
5.33.10	REPORTING YEAR (SAIDI)	91.330
5.33.11	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.677
5.33.12	REPORTING YEAR (SAIFI)	1.060

5.33.13 CORRECTIVE ACTION PLAN:

This circuit serves a residential and commercial portion of northern Boone County. While the substation is owned and maintained by East Kentucky Power, the transmission feed and generation source for this substation is Duke Energy. This circuit experienced a power outage that was a result of the loss of transmission feed to the substation due to a transmission jumper failing at the Miami Fort Plant.

Actions:
 Owen Electric and EKPC regularly meet to discuss reliability concerns and develop remediation plans. Owen Electric, through EKPC, has communicated with Duke Energy regarding the reliability concerns and Duke has drawn up plans to provide better switching and backfeeding capability to our northern substations. Owen Electric and EKPC will continue to hold dialog with Duke Energy.

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

Additional pages may be attached as necessary
SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW
INCLUDE CURRENT VEGETATION MANAGEMENT PLAN
Additional pages may be attached as necessary

Owen Electric's Vegetation Management Plan, depending on budget, is an aggressive 4-yr. trim cycle covering our operating territory. OEC also maintains a 2-yr. intermediate trim cycle for 3-ph lines extending from the substation to the first set of breakers and beyond, as the need and budget allows. Owen employs a comprehensive herbicide spray program covering our entire operating area, again, in a 4-yr. cycle. Circuit spraying is done the year following the circuit trim to allow the tender re-sprouts to fully absorb the herbicide.

Our vegetation management plan is fluid and can be adjusted easily to allow for rainfall, drought, and differences in soil fertility and soil structure. If a circuit needs to be attended sooner than scheduled, or later, it can be done.

SECTION 7: UTILITY COMMENTS

During the course of 2013 OEC continued to support several initiatives designed to minimize the extent of outages and speed in the restoration of outages caused by weather. Owen Electric's Feeder Hardening program is in its sixth year. OEC has also implemented an ongoing over-current protection review of each feeder prioritized by operational feedback and length of feeder. These programs will continue into the 2014-2017 Construction Work Plan.

We continue to operate a State-funded (DEDI) "smart-grid" self-healing project which was deployed in April of 2011 and have expanded this technology to two additional sites through a Federally funded DOE grant, to provide backup power to critical Sanitation District plants.

OEC, in cooperation with EKPC, had begun planning on a new substation in our southern territory that will reduce exposure on our long rural 25kv circuits should improve reliability significantly for our membership in this area of our service territory. OEC continues working on future plans to address other feeders with plans for new substations that will shorten the feeder lengths and provide improvements in reliability. Until these substations can be implemented, initiatives such as feeder hardening, focused ROW clearing, and increased sectionalizing will continue to be considered.